Remarks

In the non-final Office Action, the Examiner submits the following: claim 1 to be anticipated under 35 U.S.C. § 102(a) anticipated over USPN 5,281,792 to Lee; claims 2-6, 9, 10, 13-18, and 21to be unpatentable under 35 U.S.C. § 103(a) over Lee in view of USPN 5,280,158 to Matava; claims 7, 8 and 11 to be unpatentable under 35 U.S.C. § 103(a) over Lee in view of USPN 6,624,615 to Park; and claims 9 and 19-23 to be unpatentable under 35 U.S.C. § 103(a) over Lee, Matava, and Park.

The Applicants respectfully submit the presently claimed invention is patentable and non-obvious over the cited references. The cited references fail to teach or disclose each element recited in the presently claimed invention, including but not limited to the limitations directed towards determining an engine shut-down condition.

Summary of claimed subject matter

The present invention relates to a method and system of heating vehicle batteries. The method and system, as recited in independent claims 1, 10, and 13, relate to controlling battery heating. The battery heating is permitted in response to a controller determining a vehicle shut-down condition. The battery is heated by controlling/enabling energy from a vehicle battery to a heater associated therewith.

Claim 1 is patentable under 35 U.S.C. § 102(a) over Lee

Independent claim 1 includes limitations directed towards determining a vehicle shut-down condition and controlling energy flow from a battery to a heater in order to heat the battery. The battery heating is predicated upon determining the vehicle shut-down condition. The Examiner asserts that Lee inherently discloses determining the vehicle shut-down condition

and that Lee further discloses controlling energy flow from a vehicle battery in order to heat the battery.

Lee relates to a device that can be attached to a vehicle battery for simultaneously heating and charging the vehicle battery. The device relies upon AC power supplied from a wall outlet or other electrical source independent from the vehicle battery.

The Examiner admits Lee fails to particularly determining a vehicle shut-down condition. However, the Examiner nonetheless asserts that Lee inherently describes doing so.

With respect to inherency, MPEP § 2112 states:

> To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is **necessarily present** in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, **may not be established by probabilities or possibilities**. The mere fact that a certain thing may result from a given set of circumstances is **not sufficient**.' In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)
>
> In relying upon the theory of inherency, the examiner must provide a **basis in fact and/or technical reasoning** to reasonably support the determination that the allegedly inherent characteristic **necessarily flows** from the teachings of the applied prior art. Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)

The Examiner has provided no basis in fact and/or technical reasoning to support his position that determining a vehicle shutdown condition necessarily flows from the teachings of Lee. The Examiner cannot provide such reasoning because Lee specifically teaches away from determining a vehicle shut-down condition.

The determine a vehicle shut-down condition, Lee must have some level of closed loop control, i.e., there must be at least some measure of sensing or measuring feedback to the Lee controller in order for the Lee controller to determine a vehicle shut-down condition. Lee simply assumes the vehicle to be shut-down otherwise the operator would not plug the AC power supply into a wall outlet and turn on the on/off switch on the charging device.

Accordingly, the determination of a vehicle shut-down condition does not necessarily flow from the teachings of Lee. The Examiner is incorrect. Lee does not inherently disclose determining a vehicle shut-down condition.

Moreover, Lee fails to disclose drawing power from the vehicle battery in order to heat the same vehicle battery. As noted above, Lee relies upon auxiliary AC power from an independent wall outlet when heating the battery. Lee, in fact, teaches away from discharge the vehicle battery when heating as Lee cannot simultaneously charge and discharge the battery during heating.

Consequently, the Lee fails to disclose each feature recited in independent claim 1. Claim 2 is patentable and nonobvious over the Lee.

Claims 2-6, 9, 10, 13-18, and 21 are patentable under 35 U.S.C. § 103(a) over Lee and Matava

This rejection applies to independent claims 10 and 13 and dependent claims 2-6, 9, 14-18 and 21, which depend therefrom and include all the limitations thereof. Each of the rejected independent claims includes similar limitations with respect to determining a vehicle shut-down condition. The Examiner continues to rely upon Lee to teach this limitation. As noted above, Lee fails in this regard and Matava fails to make up for Lee. As such, claims 2-6, 9, 10, 13-18, and 21 are patentable and non-obvious over the cited references.

Claims 7, 8 and 11 are patentable under 35 U.S.C. § 103(a) over Lee and Park

Claims 7, 8, and 11 depend from patentable claim 10, and therefore, are patentable at least for the same reasons as claim 10 is patentable.

Claims 9 and 19-23 are patentable under 35 U.S.C. § 103(a) over Lee, Matava, and Park

Claims 9 and 19-23 depend from patentable claims 10 and 13, and therefore, are patentable at least for the same reasons as claims 10 and 13 are patentable.

Conclusion

In view of the foregoing, the Applicants respectfully submit the each rejection has been fully replied to and traversed and that the case is in condition to pass to issue. The Examiner is respectfully requested to pass the case to issue and is invited to contact the undersigned if it would further prosecution of this case to issue.

Respectfully submitted,
Douglas Zu

By _____
John R. Buser
Reg. No. 51,517
Attorney/Agent for Applicant

Date: 6-28-06

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351